**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (Currently Amended): A catheter tip retention device comprising:

a catheter tip having an outer circumferential wall, said catheter tip having a lumen extending therein ~~and an opening through the outer circumferential wall~~ for receiving therein an end of a catheter; and

a retaining ring constructed of a shape memory material set to a first configuration having a first diameter, wherein the retaining ring is configured to be expanded to a second configuration having a second diameter greater than the first diameter so that the ring has a circumference greater than the outer circumferential wall of the catheter tip, and so that the ring may be positioned over the outer circumferential wall of the catheter tip; and wherein the retaining ring is configured to return towards its first diameter thereby coupling the end of the catheter to the catheter tip.

Claim 2 (Original): The catheter tip retention device of claim 1 wherein the ring comprises an alloy of nickel and titanium.

Claim 3 (Original): The catheter tip retention device of claim 1 wherein the retaining ring is in an austenitic phase in the first configuration.

Claim 4 (Original): The catheter tip retention device of claim 1 wherein the retaining ring is in a temperature induced martensitic phase in the second configuration.

Claim 5 (Original): The catheter tip retention device of claim 1 wherein the retaining ring is in a stress induced martensitic phase in the second configuration.

Claim 6 (Original): The catheter tip retention device of claim 3 wherein the shape memory alloy has a phase transformation temperature of below about 68 degrees Fahrenheit.

Claim 7 (Original): The catheter tip retention device of claim 1 further comprising a catheter, wherein the catheter has an end.

Claim 8 (Original): The catheter tip retention device of claim 7 wherein the end of the catheter comprises an inner member of a catheter.

Claim 9 (Original): The catheter tip retention device of claim 7 wherein the ring causes an interference fit between the catheter tip and the end of the catheter.

Claim 10 (Original): The catheter tip retention device of claim 1 wherein the catheter tip comprises a slot in the outer circumference of the catheter tip configured to receive the ring.

Claim 11 (Currently Amended): A catheter tip retention device comprising:

means for tracking a catheter through a body lumen, the tracking means having an outer circumferential wall, said tracking means having a catheter lumen ~~and an opening through the outer circumferential wall~~ for receiving an end of a catheter therein; and

means for coupling the catheter tip to the end of the catheter, wherein the coupling means comprises a superelastic ~~means~~ material for causing the coupling means to return to a first set configuration having a first diameter from a second expanded configuration having a second diameter greater than the first diameter, to thereby couple the tracking means to the end of the catheter.

Claim 12 (Previously Presented) The catheter tip retention device of claim 11 wherein the coupling means is temperature set to the first configuration.

Claim 13 (Previously Presented) The catheter tip retention device of claim 10 wherein the coupling means comprises a spring for causing the coupling means to return to the first set configuration.

Claim 14 (Withdrawn): A method of manufacturing a catheter comprising the steps of:

providing:

a catheter having an end;

a catheter tip having an outer circumferential wall and an opening through the outer circumferential wall for receiving the end of a catheter; and

a retaining ring constructed of a shape memory material set to first configuration having a first diameter;

inserting the end of the catheter into the opening of the catheter tip;

expanding the retaining ring to a second configuration having second diameter greater than the first diameter so that the ring has a circumference greater than the outer circumferential wall of the catheter tip;

positioning the ring over the outer circumferential wall of the catheter tip; and

causing the retaining ring to return towards its first diameter thereby coupling the end of the catheter to the catheter tip.

Claim 15 (Withdrawn): The method of claim 14 wherein the shape memory alloy has a phase transformation temperature;

wherein the step of expanding the retaining ring comprises: cooling the ring to a temperature at or below the phase transformation temperature ; and

wherein the step of causing the retaining ring to return towards its first diameter comprises: warming the ring to a temperature at or greater than the phase transformation temperature.

Claim 16 (Withdrawn): The method of claim 14 wherein the step of expanding the ring to the second configuration comprises stressing the shape memory material to a stress induced martensitic phase; and wherein the step of causing the retaining ring to return towards its first diameter releasing the stress on the shape memory material whereby the shape memory material returns to an austenitic phase.

Claim 17 (Previously Presented): The catheter tip retention device of claim 1 wherein the retaining ring couples the end of the catheter to the catheter tip by exerting an inward radial force against the catheter tip, thereby clamping the catheter tip around the catheter.

Claim 18 (Previously Presented): The catheter tip retention device of claim 11 wherein the coupling means couples the end of the catheter to the tracking means by exerting an inward radial force against the tracking means, thereby clamping the tracking means around the catheter.

Claim 19 (Previously Presented): A catheter tip assembly, comprising:

a tubular catheter;

a catheter tip disposed at an end of said catheter; and

a shape memory material that applies a radially inward clamping force to clamp said catheter tip to said catheter.

Claim 20 (Previously Presented): A catheter tip assembly according to claim 19, wherein said catheter tip has at least a portion thereof disposed in peripherally surrounding relation to a portion of said catheter.

Claim 21 (Previously Presented): A catheter tip assembly according to claim 20, wherein an exterior surface of said catheter tip has a peripheral groove for receiving said shape memory material.

Claim 22 (Previously Presented): A catheter tip assembly according to claim 20, wherein said catheter tip has a guide wire lumen therethrough, and wherein said tubular catheter has an opening at an end thereof aligned with said lumen.